

(19) World Intellectual Property Organization  
International Bureau



(43) International Publication Date  
13 December 2001 (13.12.2001)

PCT

(10) International Publication Number  
WO 01/95019 A2

(51) International Patent Classification:

G02F

(21) International Application Number: PCT/US01/18370

(22) International Filing Date: 7 June 2001 (07.06.2001)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data: 09/589,262 7 June 2000 (07.06.2000) US

(71) Applicant (for all designated States except US): THREE-FIVE SYSTEMS, INC. [US/US]; 1600 N. Desert Drive, Tempe, AZ 85281-1230 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): MEADE, Brian, A. [—/US]; 3471 E. Ludlow Drive, Phoenix, AZ 85032 (US). PFEIFFER, Matthias, T. P. [—/US]; 950 E., Knoll Street, Mesa, AZ 85023 (US).

(74) Agent: SLAYDEN, Bruce, W., II; Baker Botts, L.L.P., One Shell Plaza, 910 Louisiana, Houston, TX 77002-4995 (US).

(81) Designated States (national): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW.

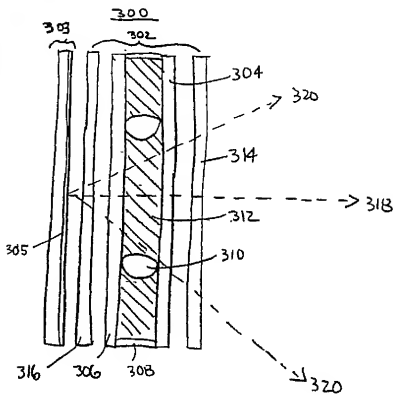
(84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).

Declarations under Rule 4.17:

— as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH,

[Continued on next page]

(54) Title: DISPLAY SYSTEM WITH SECONDARY VIEWING IMAGE CAPABILITIES



(57) Abstract: A display system according to various aspects of the present invention includes a system and method for providing a primary and secondary viewing image within the display system. An exemplary display system includes an imaging system and an illumination system. The imaging system may comprise any system configured for providing images to a viewer, such as LCD systems, CDT's or projections systems and the like. The illumination system suitably comprises any means for directing a light source through the imaging system to facilitate a primary viewing image and a secondary viewing image. For example, the illumination system may comprise a hologram or prism sheet configured to provide a secondary image. Moreover, such a display system can be readily manufactured using present techniques for making display systems. Thus, a display system according to various aspects of the present invention tends to provide marketing and information content advantages over prior art display systems, without increasing dramatically the cost or complexity of present display systems.